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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/614,814	07/09/2003	Yuui Shimizu	240046US2S	8004

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EXAMINER	
LE, THONG QUOC	

ART UNIT	PAPER NUMBER
2827	

DATE MAILED: 03/14/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/614,814	SHIMIZU ET AL.	
	Examiner	Art Unit	
	Thong Q. Le	2827	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1-34 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) 27-30 is/are allowed.

6)☒ Claim(s) 1,8,14,15,21,31 and 34 is/are rejected.

7)☒ Claim(s) 2-7,9-13,16-20,22-26,32 and 33 is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date 7/9/03,6/9/05.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. Claims 1-347 are presented for examination.

Information Disclosure Statement

2. This office acknowledges receipt of the following items from the Applicant:

Information Disclosure Statement (IDS) filed on 06/09/2005.

Information Disclosure Statement (IDS) filed on 07/09/2003.

3. Information disclosed and list on PTO 1449 was considered.

Priority

4. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Specification

5. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

7. Claims 1,8,14-15,21,31,34 are rejected under 35 U.S.C. 102(e) as being anticipated by Numata et al. (U.S. Patent No. 6,341,084).

Regarding claims 1, 15, Numata et al. disclose a magnetic random access memory (Figure 3) comprising:

a memory cell array in which memory cells (Figure 3, 142) , each having a magnetoresistive element as storage element (ABSTRACT) , are arranged correspondence with addresses that are arranged in a matrix format (Figure 3, 105);

word lines (Figure 3, 133-136) respectively connected to rows of the memory cell array; bit lines (Figure 3, 121-124) respectively connected memory cell array (Column 1, lines 9-11);

a row decoder (Figure 3, 103) to select the word lines;

a column decoder (Figure 3, 101) to select a bit lines; and

wherein electrical characteristic values based on storage data stored a plurality of memory cells are detected, reference data is continuously written in plurality of

memory cells (Column 4, lines 20-36) , the reference data written in the plurality memory cells is continuously read out to detect electrical characteristic values based on the reference data (Column 5, lines 52-58), and the electrical characteristic values based on the storage data are compared with those based on the reference data to determine values (Column 10, lines 51-67, Column 11, lines 54, Column 12, lines 4-30).

Regarding claim 14, Numata et al. disclose a control section (Figure 3, 102,104) which generates an address signal (Figure 3, X-ADRS, Y-ADRS) to be applied to the row decoder and column decoder (Column 3, lines 55-61).

Regarding claim 21, Numata et al. disclose a driving method of a magnetic random access memory (Figure 3) which comprises:

a memory cell array in which memory cells (Figure 3, 142) , each having a magnetoresistive element as storage element (ABSTRACT) , are arranged correspondence with addresses that are arranged in a matrix format (Figure 3, 105);

word lines (Figure 3, 133-136)respectively connected to rows of the memory cell array; bit lines (Figure 3, 121-124) respectively connected memory cell array (Column 1, lines 9-11);

a row decoder (Figure 3, 103) to select the word lines; and

a column decoder (Figure 3, 101) to select a bit lines; the method comprising:

executing a data write (Column 16, lines 22-50) which is set to continuously write data in a plurality of first arbitrary memory cells; and executing a data read (Column 17, lines 20-33) which is set to continuously read out storage data stored in a plurality of second arbitrary memory cells.

Regarding claim 31, Numata et al. disclose a magnetic random access memory (Figure 3) comprising:

a memory cell array in which memory cells (Figure 3, 142) , each having a magnetoresistive element as storage element (ABSTRACT) , are arranged correspondence with addresses that are arranged in a matrix format (Figure 3, 105);

word lines (Figure 3, 133-136) respectively connected to rows of the memory cell array; bit lines (Figure 3, 121-124) respectively connected memory cell array (Column 1, lines 9-11);

a row decoder (Figure 3, 103) to select the word lines;

a column decoder (Figure 3, 101) to select a bit lines; and

a setting section (Figure 7, 403,402) to set a data write to continuously write data in a plurality of first arbitrary memory cells, and a set a data read to continuously read out storage data stored in a plurality of second arbitrary memory cells (X and Y peripherals use to set a data is written or a data is read out, Column 15, lines 59-67; Column 16 lines 1-50).

Regarding claim 34, Numata et al. disclose a control section which generates an address signal to be supplied to row decoder and column decoder (Figure 3, Y-ADRS, X-ADRS).

Allowable Subject Matter

8. Claims 2-7, 9-13, 16-20, 22-26, 32-33 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 2-7, 9-13,16-20,22-26, 32-33 include allowable subject matter since the prior art made of record and considered pertinent to the applicant's disclosure does not teach or suggest the claimed limitations. Numata et al. (U.S. Patent No. 6,341,084), and others, does not teach the claimed invention having a write/read of the reference data is executed in synchronism or asynchronously to an external clock as claims 2-7, 9-13,16-20,22-26 disclosed, and a column address buffer as claims 32-33 disclosed.

9. Claims 27-30 are allowed.

Claims 27-30 include allowable subject matter since the prior art made of record and considered pertinent to the applicant's disclosure does not teach or suggest the claimed limitations. Numata et al. (U.S. Patent No. 6,341,084), and others, does not teach the claimed invention having a magnetic random access memory comprises a first buffer to store detected electrical characteristic values based on storage data stored in a plurality of memory cells, and a second buffer to store continuously detected electrical characteristic values based on reference data written in the plurality of memory cells.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thong Q. Le whose telephone number is 571-272-1783. The examiner can normally be reached on 8:00am-5:00pm M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Zarabian Amir can be reached on 571-272-1852. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Thong Q. Le
Primary Examiner
Art Unit 2827

3/08/2006